Base + Hardner

FEB 04 1982

DPM 5066

UNITED AIR LINES
TOXICOLOGICAL AND SAFE HANDLING DATA
(FORM APPROVED BY OSHA)

FOR UAL USE ONLY	
UAL REF. NO.	0175-841
UMS NO.	PAI3782
PRODUCT DESIGNATION	URAFILM TFE ANTI CHAFE COATING
DATE	

SECTION I - SOURCE AND NOMENCLATURE

MANUFACTURER'S NAME: Advanced Coatings & Chemicals	EMERGENCY TELEPHONE NO.: (213) 579-6270
ADDRESS (Number, Street, City, State, ZIP Code): 2213 N. Tyler Avenue, So. El Monte, California 91733	
TRADE NAME AND SYNONYMS: URAFILM	CHEMICAL FAMILY: Polyurethane
CHEMICAL NAME AND SYNONYMS: Polyurethane	FORMULA: 3-1W-6 --3-1N-4 3-1W-21 ✓

SECTION II - HAZARDOUS INGREDIENTS

BASIC MATERIAL	APPROXIMATE OR MAXIMUM % WT. OR VOL.	ESTABLISHED OSHA STANDARD	LD 50 ORAL	LD 50 PERCUT.	LC 50 SPECIES	LC 50 CONC.
Terminated Isocyanate	13	N.E.				
Prepolymer	14	N.E.				
Butyl Acetate	7	N.E.				
Methyl Ethyl Ketone	5	N.E.				
Butyl Cellosolve	17	N.E.				
Xylol	2	N.E.				
Toluol	4	N.E.				

SECTION III - PHYSICAL DATA

BOILING POINT: N.D. °F	VAPOR PRESSURE: N.D. mm Hg.
MELTING POINT: °F	VAPOR DENSITY (Air=1): x
SPECIFIC GRAVITY (H_2O=1): 1.14	EVAPORATION RATE (N.D. =1)
SOLUBILITY IN WATER: Pts/100 pts H_2O	VOLATILE: % Vol. % Wt.
APPEARANCE AND ODOR	

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: Resin 25°F. TOC; Hardener 90°F. TOC (less 10%)		FLAMMABLE (EXPLOSIVE) LIMITS	UPPER / LOWER
METHOD USED			
EXTINGUISHING MEDIA: Water fog foam - CO2 or dry chemical			
SPECIAL FIRE FIGHTING PROCEDURES: None			
UNUSUAL FIRE AND EXPLOSION HAZARDS: Concentrated vapors may be explosive			

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SECTION V - HEALTH HAZARD DATA	
TOXIC LEVEL N.A.	CARCINOGENIC
PRINCIPLE ROUTES OF ABSORBTION	SKIN AND EYE IRRITATION
RELEVANT SYMPTOMS OF EXPOSURE	
EFFECTS OF CHRONIC EXPOSURE	Dizziness & possible nausea
EMERGENCY AND FIRST AID PROCEDURES	For inhalation remove victim from concentrated area & consult physician. For eye contact irrigate eyes with water & consult physician. For skin wash thoroughly with water.

SECTION VI - REACTIVITY DATA	
CONDITIONS CONTRIBUTING TO INSTABILITY	Stable
CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION	
INCOMPATABILITY (Materials to Avoid)	None
HAZARDOUS DECOMPOSITION PRODUCTS	Carbon monoxide & dioxide, nitrogen dioxide Aldehydes and hydrogen cyanide

SECTION VII - SPILL OR LEAK PROCEDURES	
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED	Remove all sources of ignition. Clean up may be accomplished with cellosolve acetate and/or MEK or other similar solvents.
WASTE DISPOSAL METHOD	Any solid residue may be burned

SECTION VIII - SPECIAL PROTECTION INFORMATION	
VENTILATION REQUIREMENTS	PROTECTIVE EQUIPMENT (Specify Types)
LOCAL EXHAUST x	EYE goggles recommended
MECHANICAL (General)	GLOVES rubber
SPECIAL	RESPIRATOR yes
OTHER PROTECTIVE EQUIPMENT	Remove all ignition sources

SECTION IX - SPECIAL PRECAUTIONS	
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE	Shelf Life 1 yr. date of mfg. when stored between 40°F - 100°F. Do not contaminate with water, alcohols - amines or acids.
OTHER PRECAUTIONS	Do not store near potential sources of ignition

Signature and Title _____ Pres. Address 2213 N. Tyler Avenue

Date 10-27-72 So. El Monte, California 91733

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MATERIAL SAFETY DATA SHEET

FEB 04 1982 NPCA 1-7

FOR COATINGS, RESINS AND RELATED MATERIALS

(Approved by U.S. Department of Labor "Essentially Similar" to Form OSHA-20) DPM-5066

DATE OF PREP 2/15/74

Section I

MANUFACTURER'S NAME: The Dexter Corporation - Midland Division

STREET ADDRESS: 31500 Hayman St

CITY, STATE, AND ZIP CODE: Hayward, CA 94544

EMERGENCY TELEPHONE NO.: (415) 471-7171 Night (415) 828-2753

PRODUCT CLASS: Urethane

MANUFACTURERS CODE IDENTIFICATION: 8-W-24 /10-C-81

TRADE NAME: Laminar® X-500 Lt. Stb. White Teflon

Section II — HAZARDOUS INGREDIENTS

INGREDIENT	PERCENT by wt	TLV PPM	TLV mg/M³	LEL	VAPOR PRESSURE 20° C mm Hg
Cellosolve Acetate	30-40	100	540	1.7	2.0
Methyl Ethyl Ketone	5-10	200	590	1.8	70.21
Xylene	0-5	100	435	1.1	-
Monomeric Isocyanate	0.5>	0.02	0.14	=	-

Section III — PHYSICAL DATA

BOILING RANGE: 176° F-313° F

VAPOR DENSITY: [x] HEAVIER [ ] LIGHTER THAN AIR

EVAPORATION RATE: [ ] FASTER [x] SLOWER THAN ETHER

PERCENT VOLATILE BY VOLUME: 61%

WEIGHT PER GALLON: 9.6 lb

Section IV — FIRE AND EXPLOSION HAZARD DATA

DOT CATEGORY: Red label - flammable, below 80° F

FLASH POINT: 24° F (T.C.C.)

LEL: See II

EXTINGUISHING MEDIA

Use National Fire Protection Association (NFPA)Class B Extinguishers (carbon dioxide, dry chemical or foam) designed to extinguish NFPA Class 1B flammable liquid fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Closed container may explode when exposed to extreme heat. Do not apply to hot surfaces.

SPECIAL FIRE FIGHTING PROCEDURES

Water spray maybe ineffective. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat. If water is used, fog nozzles are preferrable.

Section V — HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE See Section II

EFFECTS OF OVEREXPOSURE Inhalation: Anesthetic. Irritation of the respiratory tract or acute nervous system depression characterized by headache, dizziness, staggering gait, confusion, unconsciousness or coma.

Skin or Eye Contact: Primary irritation.

EMERGENCY AND FIRST AID PROCEDURES Fumes: Remove from exposure. Restore breathing. Keep warm and quiet. Notify a physician. Splash (eyes): Flush immediately with copious quantities of running water for at least 15 minutes. Take to a physician for definitive medical treatment. Splash (skin): Remove with soap and water . Remove contaminated clothing.

Section VI — REACTIVITY DATA

STABILITY ☐ UNSTABLE ☒ STABLE CONDITIONS TO AVOID NA

INCOMPATABILITY (*Materials to avoid*)

HAZARDOUS DECOMPOSITION PRODUCTS May produce hazardous fumes when heated to decomposition as in welding. Fumes may contain carbon monoxide, oxides of nitrogen and others.

HAZARDOUS POLYMERIZATION ☐ MAY OCCUR ☒ WILL NOT OCCUR

CONDITIONS TO AVOID NA

Section VII — SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Remove all sources of ignition (flames, hot surfaces, and electrical, static, or frictional sparks.) Avoid breathing vapors. Ventilate area. Remove with inert absorbent and non-sparking tools.

WASTE DISPOSAL METHOD

Dispose of in accordance with local, state and federal regulations. Do not incinerate closed containers.

Section VIII — SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION In outdoor or open areas use Bureau of Mines approved mechanical filter respirator to remove solid air borne particles of overspray during spray application. In restricted ventilation areas use Bureau of Mines approved chemical-mechanical filters designed to remove a combination of particulate and gas and vapor. In confined areas use Bureau of Mines approved air line type respirators or hoods.

VENTILATION Provide general dilution or local exhaust ventilation in volume and pattern to keep TLV of most hazardous ingredient in Section II below acceptable limit, LEL in Section IV below stated limit, and to remove decomposition products during welding or flame cutting on surfaces coated with this product.

PROTECTIVE GLOVES Required for prolonged or repeated contact.

EYE PROTECTION Use safety eyewear designed to protect against splash of liquids.

OTHER PROTECTIVE EQUIPMENT Prevent prolonged skin contact with contaminated clothing.

Section IX — SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Do not store above 120° F. Store large quantities in buildings designed for storage of NFPA Class I flammable liquids.

OTHER PRECAUTIONS

Do not take internally. Containers should be grounded when pouring. Avoid free fall of liquid in excess of few inches. Do not flame cut, braze, or weld without U. S. Bureau of Mines approved respirator or appropriate ventilation.

MATERIAL SAFETY DATA SHEET

NPCA 1-

FOR COATINGS, RESINS AND RELATED MATERIALS

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PPM - 5066

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PRODUCT CLASS: Urethane

MANUFACTURERS CODE IDENTIFICATION: 7-G-1, 10-C-45

TRADE NAME: Laminar® X-500 Safety Green (non-lead)

Section II — HAZARDOUS INGREDIENTS

INGREDIENT	PERCENT by wt	TLV PPM	TLV mg/M³	LEL	VAPOR PRESSURE 20° C mm Hg
Cellosolve Acetate	30-40	100	540	1.7	2.0
Toluene	0-5	100	375	1.2	-
Xylene	0-5	100	435	1.1	-
Methyl Ethyl Ketone	5-10	200	590	1.8	70.21
Ethyl Acetate	20-30	400	1,400	2.2	74.4

Section III — PHYSICAL DATA

BOILING RANGE: 171° F - 313° F

VAPOR DENSITY: [xxx] HEAVIER [ ] LIGHTER THAN AIR

EVAPORATION RATE: [ ] FASTER [X] SLOWER THAN ETHER

PERCENT VOLATILE BY VOLUME: ~75%

WEIGHT PER GALLON: 8.8 lbs

Section IV — FIRE AND EXPLOSION HAZARD DATA

DOT CATEGORY: Red label - flammable below 80° F

FLASH POINT: 24° F (T.C.C.)

LEL: See II

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